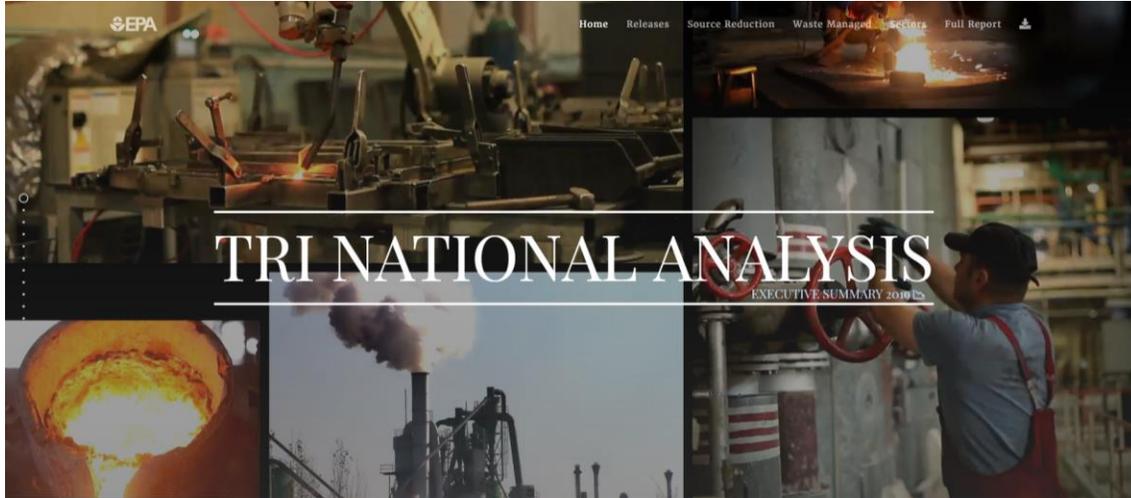




Toxics Release Inventory (TRI) 2021 National Analysis – SUMMARY

Page 1 – Video of industrial operations with title and navigation bar



Page 2 – View data by state, metro area, watershed or tribal

Welcome!

This executive summary presents an overview of EPA’s most recent Toxics Release Inventory (TRI) data, based on the detailed information found in EPA’s [TRI National Analysis website](http://www.epa.gov/trinationalanalysis/) (link opens in a new tab or browser window). Congress established the TRI to ensure that every community is empowered with access to information on the toxic chemicals handled and released at nearby facilities. The TRI includes annual data submitted by industry on how chemical wastes are managed, including those that are released to the environment.

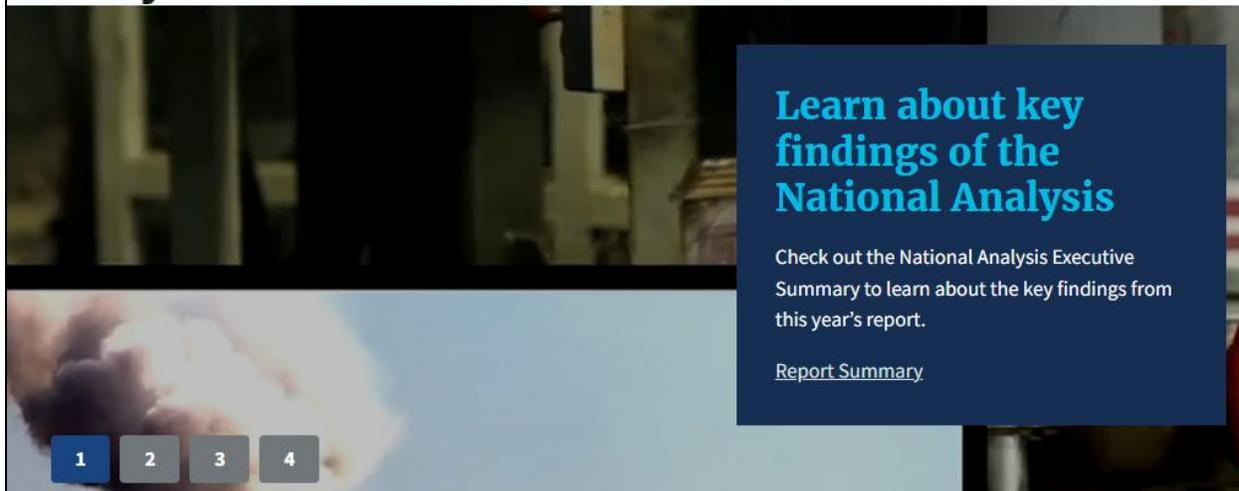
Page 3 – National Analysis

The TRI National Analysis is EPA’s presentation of the most recent data.

The National Analysis is part of EPA’s commitment to transparency and enhances public understanding of the TRI data by:

- Summarizing reported data on releases and other waste management practices of toxic chemicals, and providing trend analyses of these data; and
- Providing interactive tools that support access to and exploration of TRI data.
- Visit the full [TRI National Analysis](http://www.epa.gov/trinationalanalysis/) (link opens in a new tab or browser window) to learn more.

Toxics Release Inventory (TRI) National Analysis



Learn about key findings of the National Analysis

Check out the National Analysis Executive Summary to learn about the key findings from this year’s report.

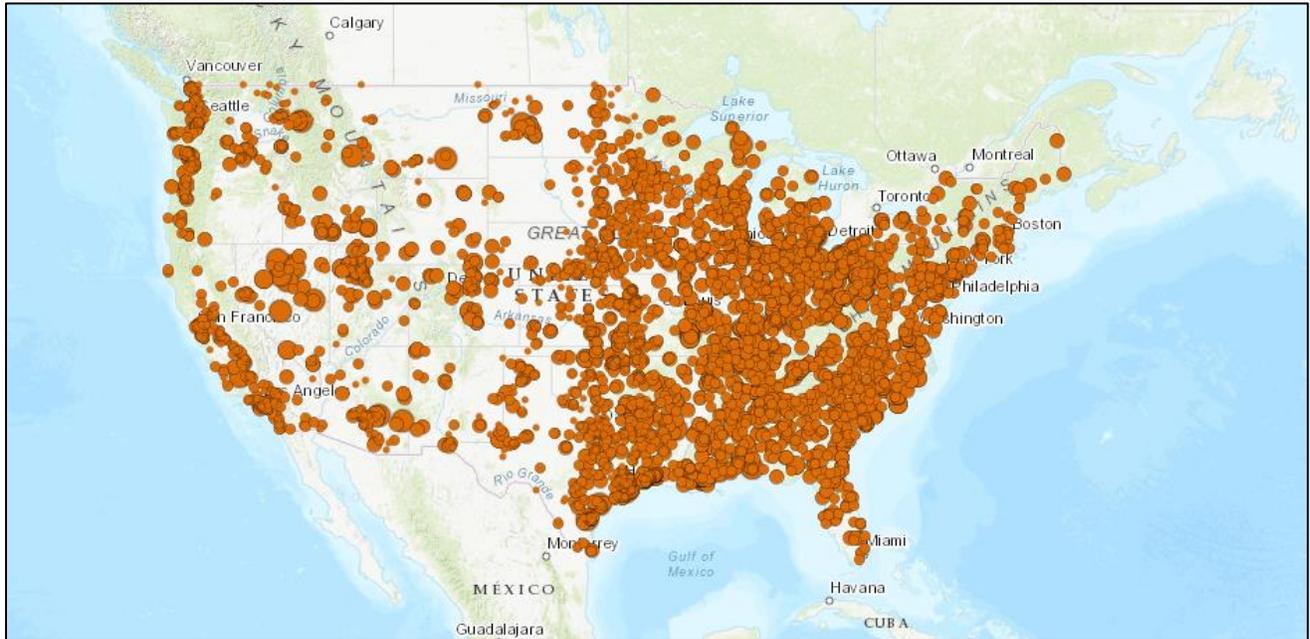
[Report Summary](#)

1 2 3 4

Page 4 – View facility-level data

21,087 facilities reported to TRI for 2021.

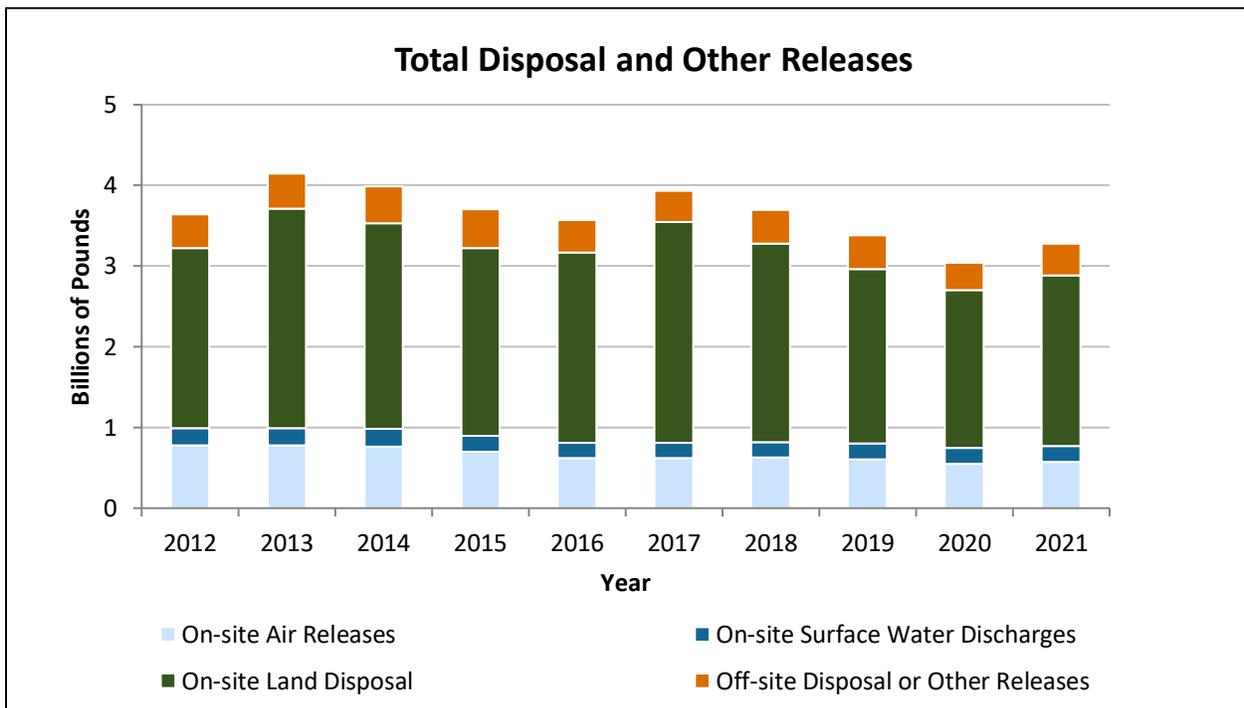
Facilities in industry sectors such as manufacturing, electric power generation, and mining have until July 1 of each year to submit data from the previous calendar year. These data then undergo quality reviews by EPA. Use this map to see the TRI information submitted by individual facilities.



Page 6 – Releases

Since 2012, releases to the environment have decreased by 10%, with reductions across all media.

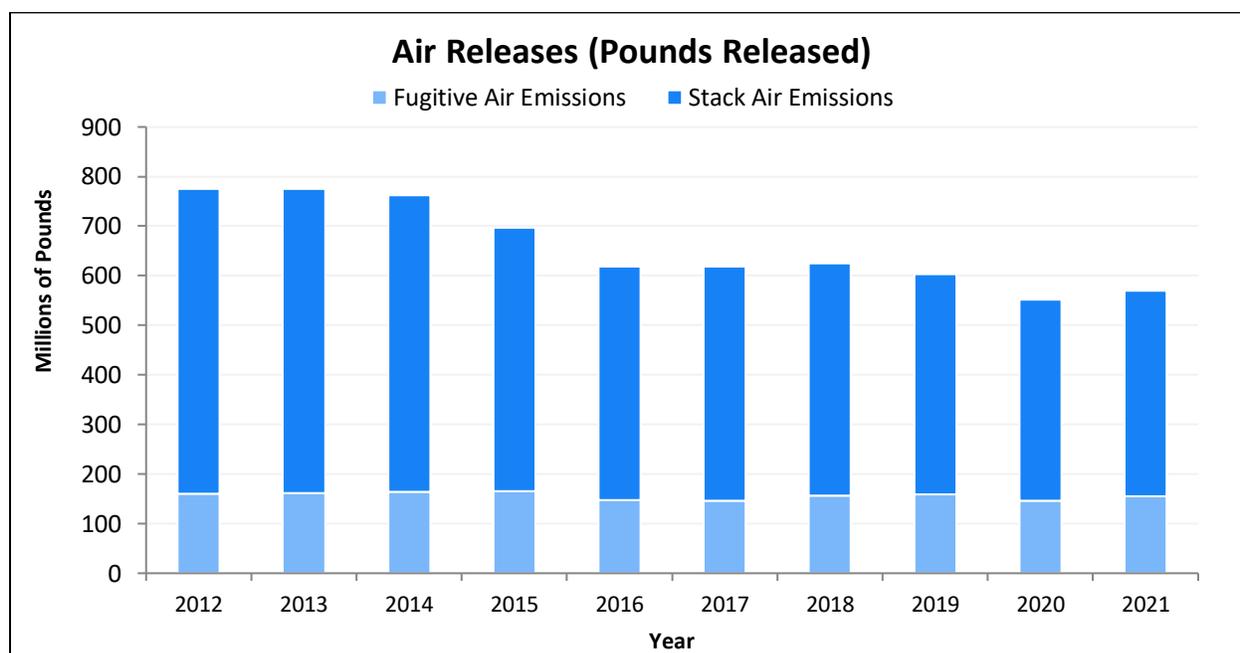
- For 2021, TRI facilities reported 3.3 billion pounds of releases to air, water, and land.
 - Land disposal, largely from metal mining, accounted for 65% of releases.
- From 2020 to 2021, releases of TRI chemicals increased by 8% (233 million pounds).
 - Releases decreased from 2019 to 2020 and releases in 2021 were similar to those reported in 2019, indicating that the increase in releases from 2020 to 2021 may have been due to a temporary reduction in releases in 2020, related to the Covid-19 public health emergency.
- Learn more about [releases reported to TRI](#) (link opens in a new tab or browser window).



Page 7 – Air Releases

Long-term declines in air emissions reported to TRI are one driver of decreased total releases.

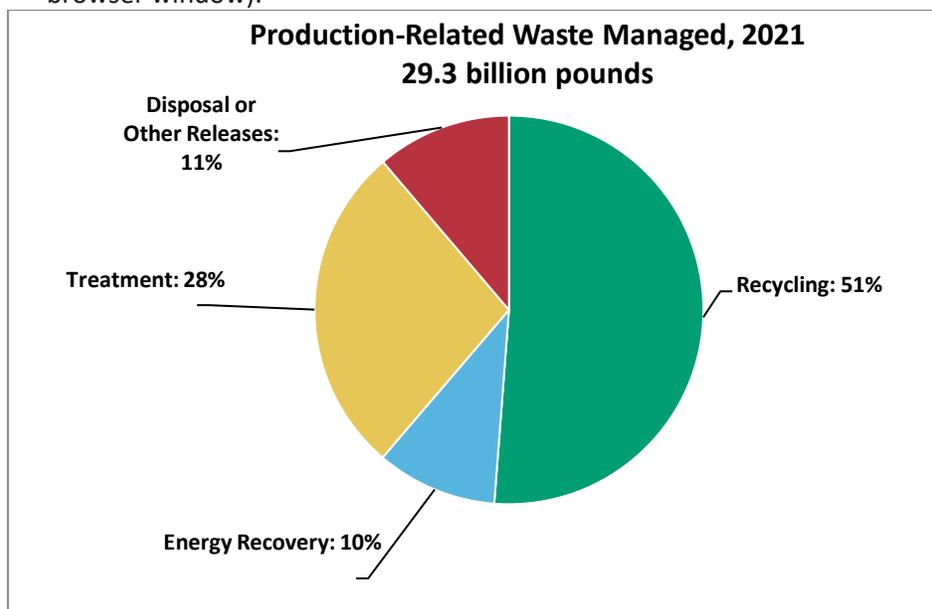
- Air releases decreased by 26% (204 million pounds) from 2012 to 2021.
- Almost all sectors reduced their air emissions since 2012, with the largest reduction coming from the electric utilities sector.
 - Air emission reductions by electric utilities were largely due to: decreased emissions of hydrochloric acid and sulfuric acid; a shift from coal to other fuel sources (e.g., natural gas); and the installation of control technologies at coal-fired power plants.
- Releases to air of ammonia, methanol and sulfuric acid accounted for almost half of all air emissions reported to TRI for 2021.
- Learn more about [air emissions reported to TRI](#) (link opens in a new tab or browser window).



Page 8 – Waste Managed

89% of the TRI chemical waste that facilities managed was not released due to preferred waste management practices such as recycling.

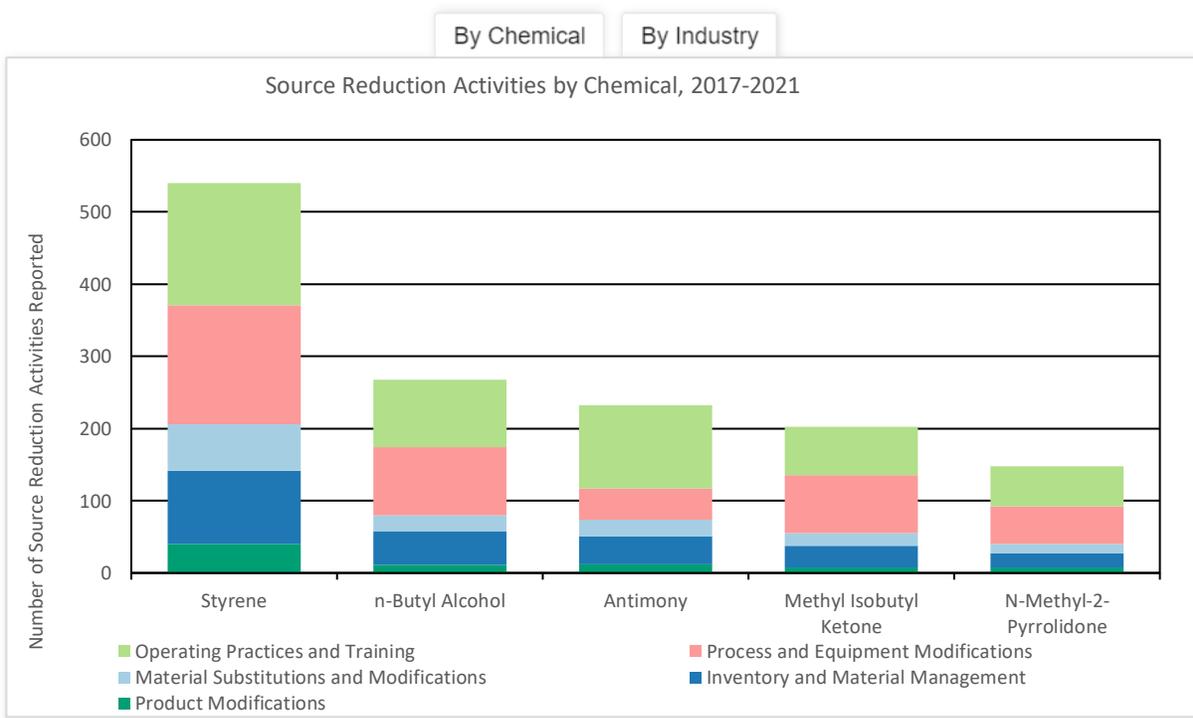
- In addition to quantities released, facilities report the quantities of TRI-listed chemicals that they manage through preferred methods including recycling, combusting for energy recovery, and treatment.
- Since 2012, production-related waste managed increased by 5.3 billion pounds (22%), driven by increased recycling.
- Learn more about [waste management practices reported to TRI](#) (link opens in a new tab or browser window).

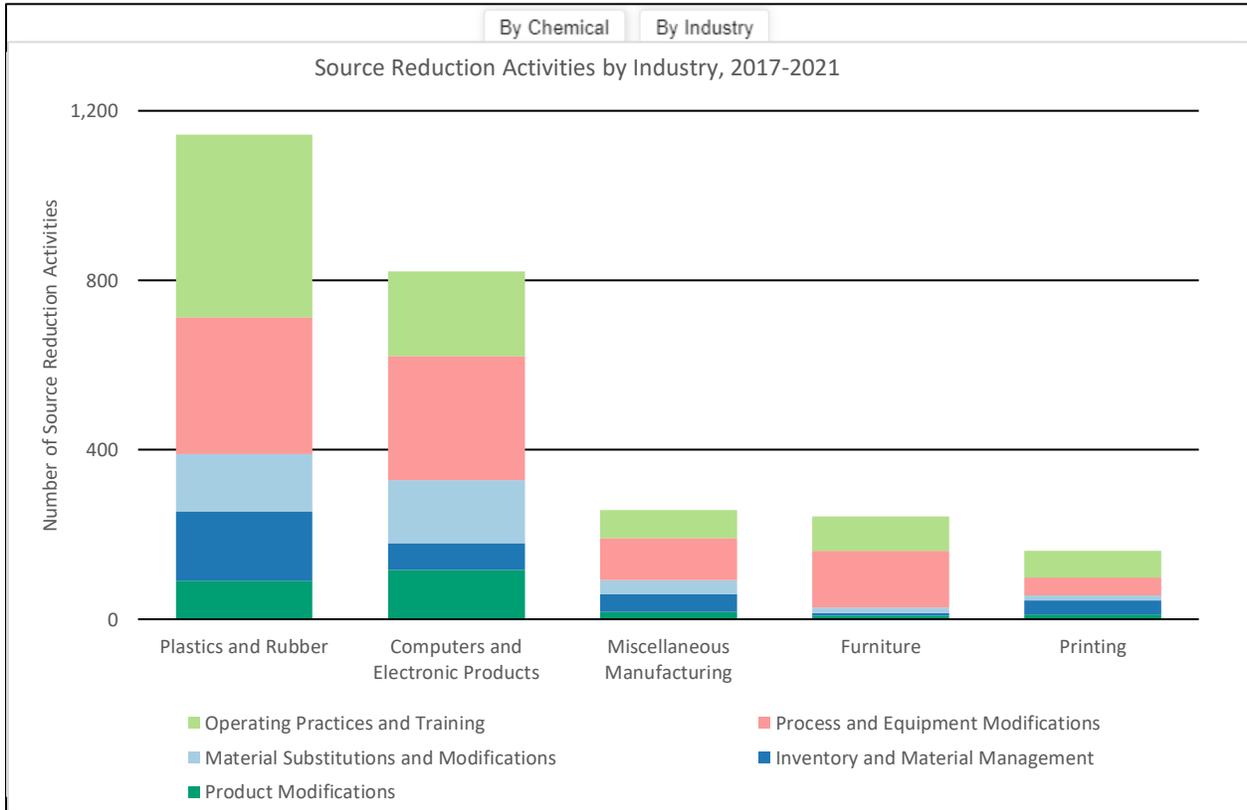


Page 9 – Source Reduction

TRI facilities implemented 3,490 new source reduction activities in 2021 to reduce pollution at its source.

- Source reduction success stories presented in the National Analysis highlight effective practices that other facilities can replicate. EPA's [TRI Pollution Prevention \(P2\) Search Tool](#) (link opens in a new tab or browser window) promotes these opportunities for knowledge transfer by allowing users to search for source reduction activities that might be relevant to their operations.
- The figure summarizes the most frequently reported source reduction activities for the chemicals and industry sectors with the highest source reduction reporting rates over the last 5 years. Facilities most commonly reported improvements to Operating Practices and Training – such as changing production schedules to minimize equipment changeovers – and Process and Equipment Modifications – such as optimizing process conditions to increase efficiency.
- Learn more about [source reduction activities reported to TRI](#) (link opens in a new tab or browser window).





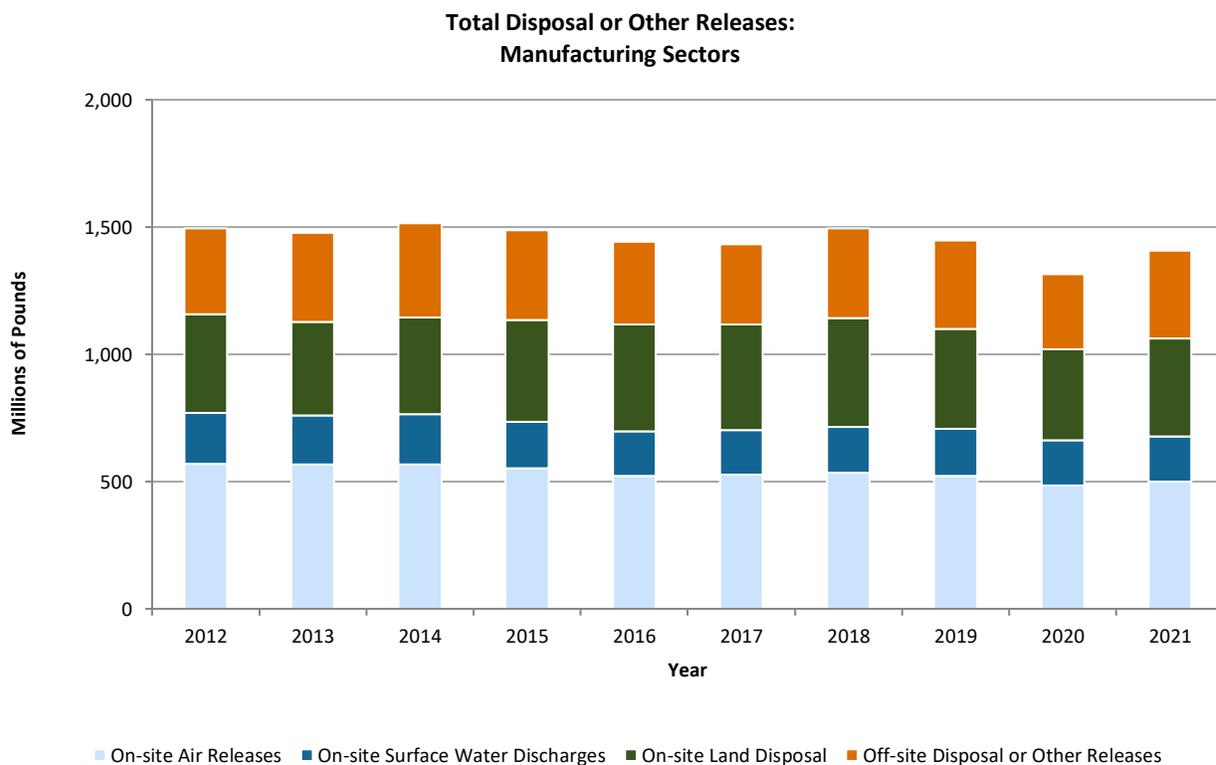
Page 10 – Sectors

[when “All Manufacturing” tab is selected]

Each year, the TRI National Analysis examines key industry sectors.

Choose from the industry sectors to the right to learn more about their TRI releases.

- Since 2012, releases by manufacturing facilities decreased by 6%. This is primarily due to reductions in air releases.
- Manufacturing facilities reported initiating more than 3,200 new source reduction activities during 2021 to reduce TRI chemical use and waste generation.
- Learn more about [sector-level TRI reporting](#) (link opens in a new tab or browser window).



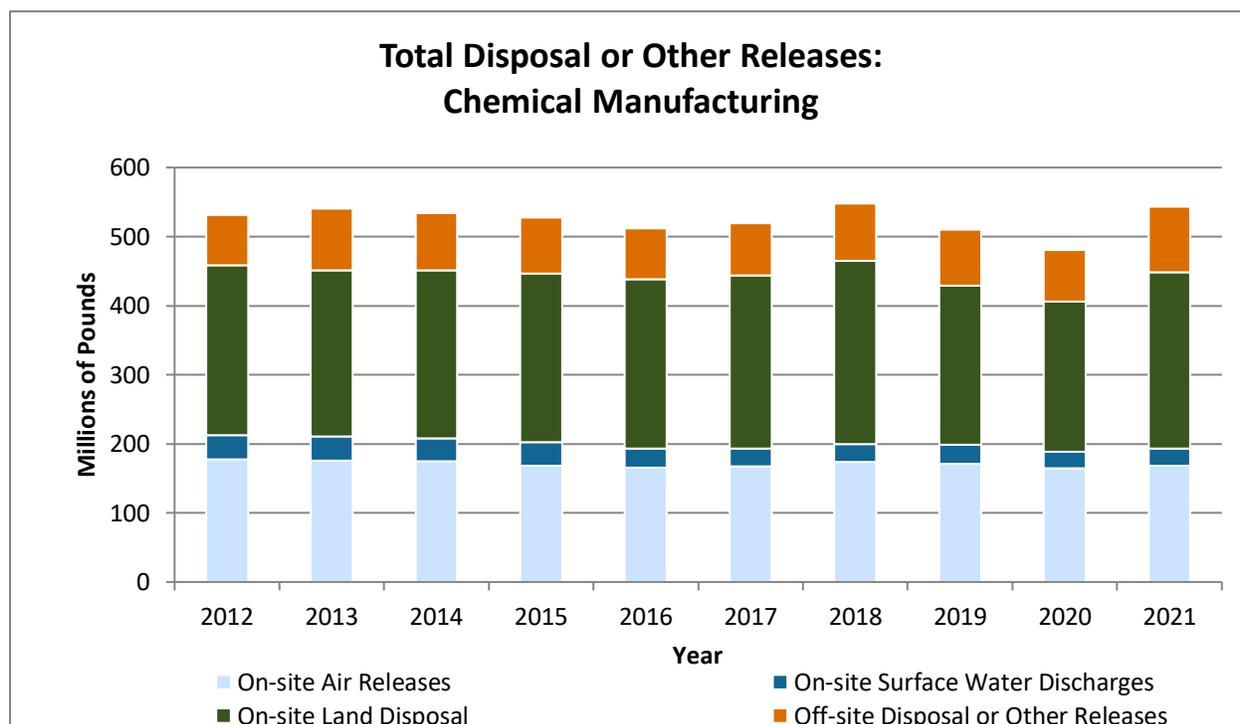


[when “**Chemical Manufacturing**” tab is selected]

Each year, the TRI National Analysis examines key industry sectors.

Choose from the industry sectors to the right to learn more about their TRI releases.

- Chemical manufacturing facilities convert raw materials into thousands of different products, including basic chemicals, products used by other manufacturers (such as synthetic fibers, plastics, and pigments), pesticides, and cosmetics, to name a few.
- Although chemical manufacturing has consistently been the sector with the most production-related waste managed, 10% of facilities in this sector reported initiating source reduction activities in 2021.

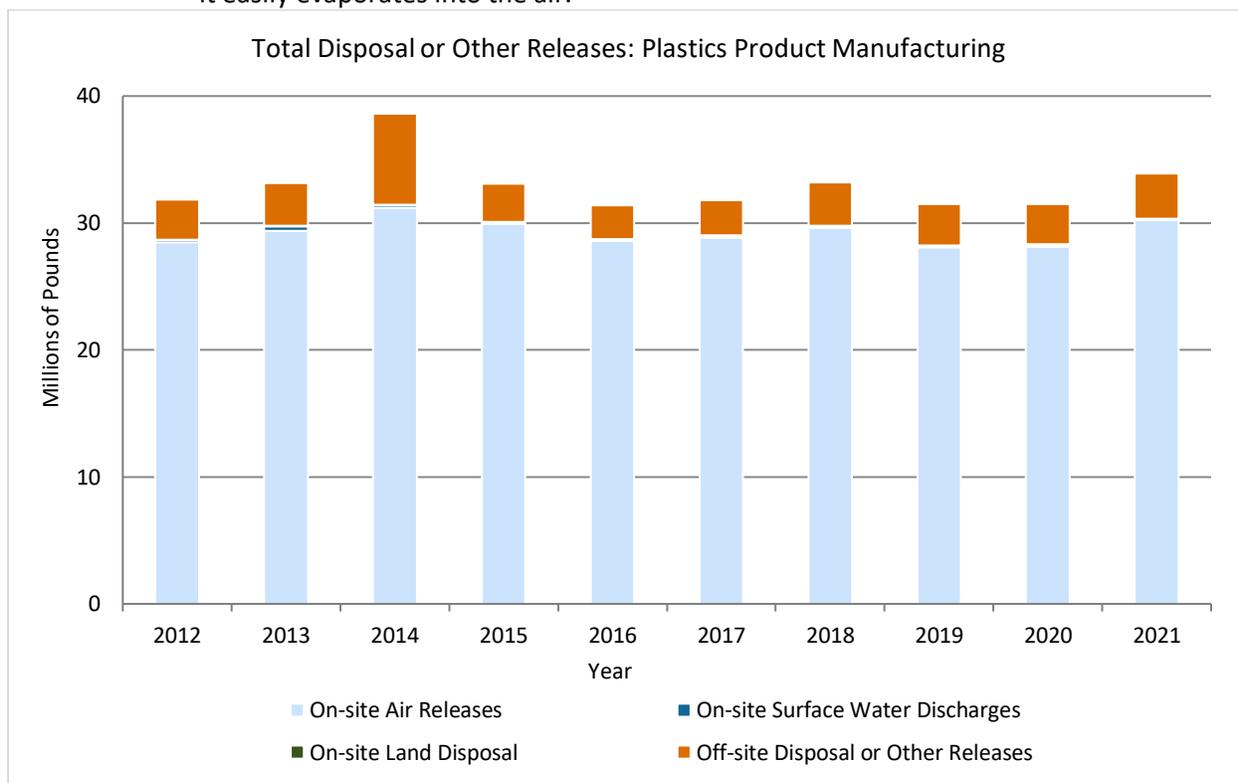


[when “**Plastics Products Manufacturing**” tab is selected]

Each year, the TRI National Analysis examines key industry sectors.

Choose from the industry sectors to the right to learn more about their TRI releases.

- Facilities in the plastics product manufacturing sector use new or recycled plastics to make products, such as packaging materials like bottles and bags, construction materials like pipes, and a wide array of other materials.
- Most of the plastics product manufacturing sector’s releases are to air (88%), a higher proportion than almost any other sector.
 - The most commonly reported chemical by facilities in this sector was styrene, a chemical used to make plastics like polystyrene. Styrene is a volatile chemical, meaning it easily evaporates into the air.

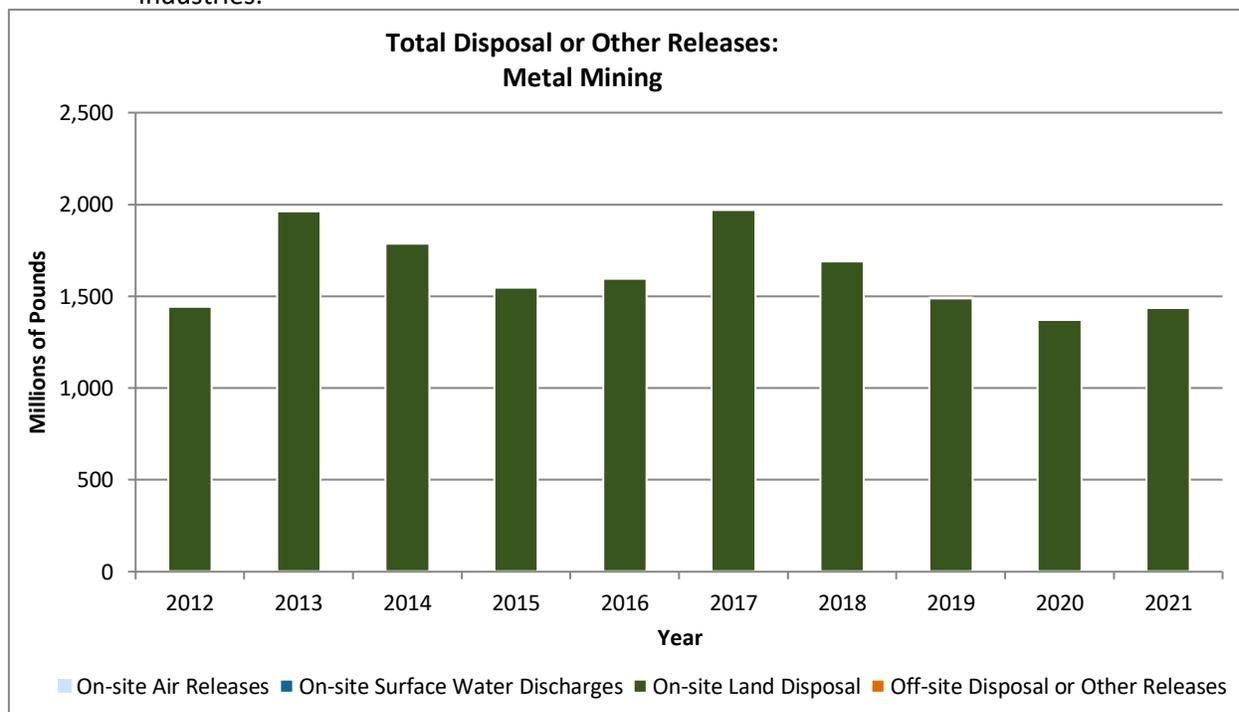


[when “**Metal Mining**” tab is selected]

Each year, the TRI National Analysis examines key industry sectors.

Choose from the industry sectors to the right to learn more about their TRI releases.

- In metal mining, the extraction and processing of minerals generates large amounts of TRI chemical waste, including in waste rock, which is disposed of at the mine. The TRI chemicals reported as released by metal mines are often metals and metal compounds that are on the TRI chemical list and that are found in the mined material - primarily lead compounds, zinc compounds, and arsenic compounds.
- From 2012 to 2021, more than 99% of the metal mining sector’s releases were in the form of on-site land disposal. The quantity of on-site land disposal by metal mines has fluctuated in recent years.
- For 2021, the metal mining sector reported the largest quantity of total disposal or other releases, accounting for 44% of total TRI releases and 68% of on-site land disposal for all industries.

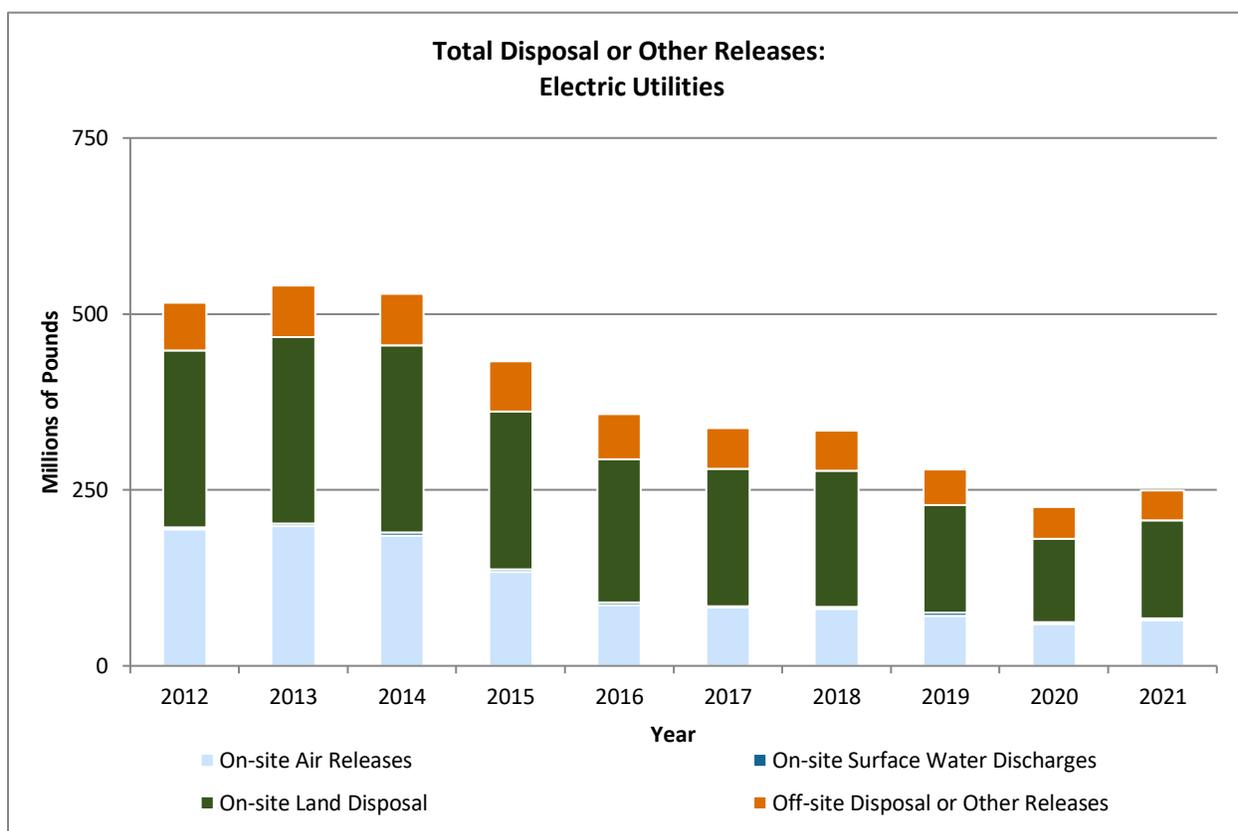


[when “**Electric Utilities**” tab is selected]

Each year, the TRI National Analysis examines key industry sectors.

Choose from the industry sectors to the right to learn more about their TRI releases.

- Electric utilities generate, transmit, and distribute electric power. Electric-generating facilities use a variety of fuels to generate electricity; however, only those electricity generating facilities that combust coal or oil to generate power for distribution in commerce are subject to TRI reporting requirements.
- Releases from the electric utilities sector decreased by 52% since 2012. This decrease was driven by a 67% (129-million-pound) decrease in air releases and a 44% (111-million-pound) decrease in on-site land disposal.
- From 2020 to 2021, releases by electric utilities increased by 10%, driven by increased on-site land disposal of barium compounds.





Page 11 – Full Report

Explore the full report - [TRI NATIONAL ANALYSIS](#)

Page 12 – Social Media

Social Media

Use the share button at the top to share this report with others and follow the latest EPA activities to protect human health and the environment.